



US005748955A

United States Patent [19]
Smith[11] **Patent Number:** **5,748,955**[45] **Date of Patent:** **May 5, 1998**[54] **STREAM DATA COMPRESSION SYSTEM
USING DYNAMIC CONNECTION GROUPS****FOREIGN PATENT DOCUMENTS**

WO88/09586 12/1988 WIPO.

[76] **Inventor:** Rodney J. Smith, 21 Baroda St.,
Khandallah, Wellington, New Zealand**OTHER PUBLICATIONS**[21] **Appl. No.:** 666,332"Algorithm to Identify Common Phrases in Source Text,"
IBM Technical Disclosure Bulletin, vol. 33, No. 12, May
1991, pp. 150-152.[22] **PCT Filed:** Dec. 20, 1994[86] **PCT No.:** PCT/NZ94/00146

§ 371 Date: Sep. 11, 1996

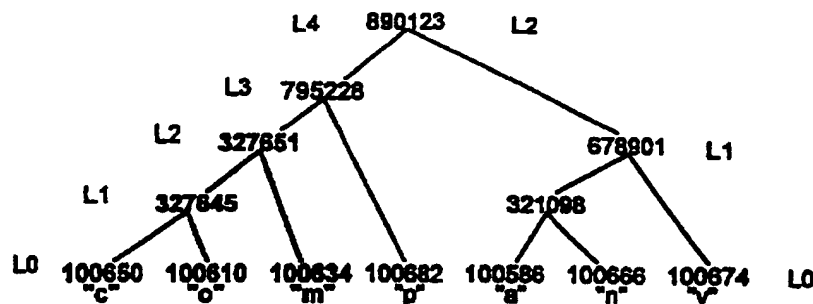
§ 102(e) Date: Sep. 11, 1996

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Dec. 20, 1993 [NZ] New Zealand 250522

[51] **Int. Cl.⁶** G06F 17/30; G06F 15/16[52] **U.S. Cl.** 395/612; 395/615; 395/200.77[58] **Field of Search** 395/60, 61, 62,
395/200, 77, 888[56] **References Cited****U.S. PATENT DOCUMENTS**

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19 Claims, 15 Drawing Sheets

DATA UNIT	ARRAY LOC. 1	ARRAY LOC. 2	ARRAY LOC. 3	ARRAY LOC. 4	ARRAY LOC. 5
c	100650				
o	100650	100610			
	327645				
m	327645	100634			
	327651				
p	327651	100682			
	795228				
a	795228	100588			
n	795228	100588	100666		
	795228	321098			
y	795228	321098	100674		
	795228	678901			
	890123				

DOCUMENT-IDENTIFIER: US 5748955 A

TITLE: Stream data compression system using dynamic connection groups

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BSPR:

The invention may broadly be said to consist in a method of compressing data, comprising the steps of assigning to each data unit a code, recording a repetition of code sequences and upon a pre-determined threshold of repetition of any particular sequence assigning to that code sequence new code, and using a hierarchal structure built with data units and established code sequences to form higher level code sequences.